



# *Instruction-book*

for

Rotary Hook  
Household Sewing Machine  
Class 186

KOCHS ADLERNÄHMASCHINEN WERKE AG · BIELEFELD · (Germany)

Cable address: Kochswerke

Phones: 63185-89



With this ADLER Sewing Machine you will own a product made of flawless and best fitted materials based on principles of a 90 years' experience by means of the most modern manufacturing methods and installations.

This ADLER Sewing Machine has been inspected, before leaving the factory by specially trained controllers on faultless sewing capacity and good quality.

The following instructions offer a good deal of most important hints even for the operator, already accustomed to other types of sewing machines, thus a thorough study will pay.

We are sure that the working of the machine has already been demonstrated to you by your agent, nevertheless we recommend to work the machine according to the instructions of this book and if there will be anything uncertain to ask the agent (supplier) of the machine for explanation.

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## Variety of sewing works

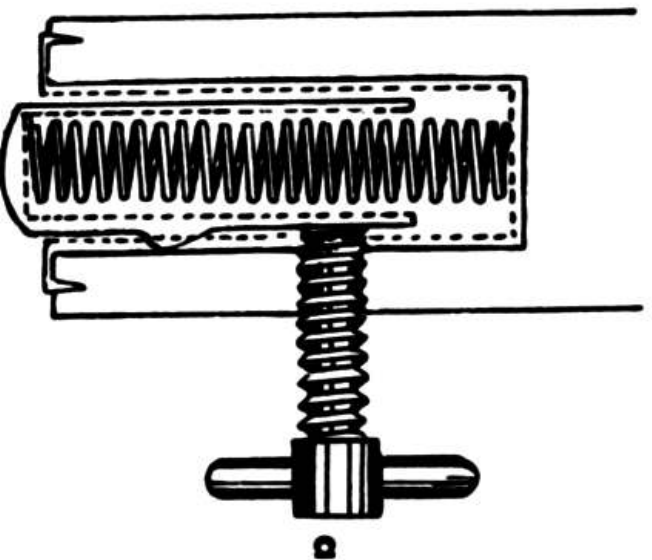
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### **The stand regulating foot**

Having mounted the stand take care that it has a firm hold on the floor. This can be done by means of the stand regulating foot on the left leg of stand.

When loosening the wing nut **a** the stand regulating foot fits itself according to the floor level, as can be seen from sketch 1 and by fastening the wing nut **a** the stand regulating foot will be held in this position.

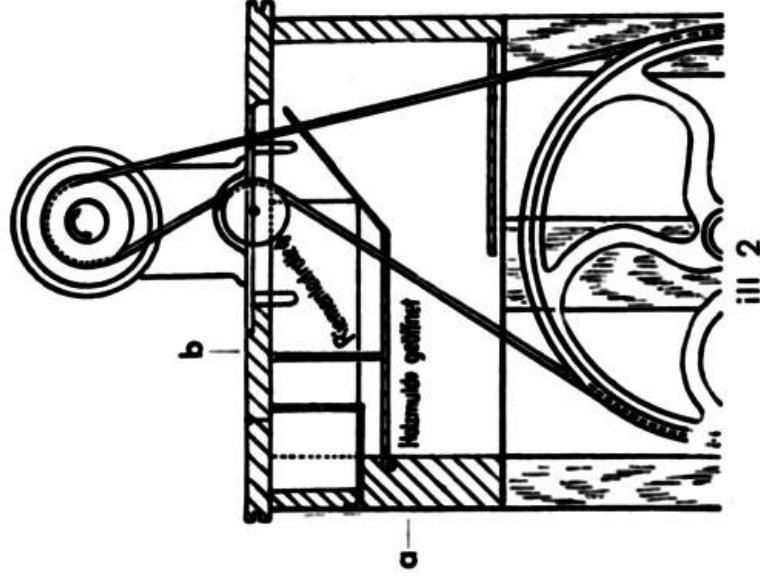


ill. 1

By means of the stand regulating foot all unevenness of the floor will be equalised.

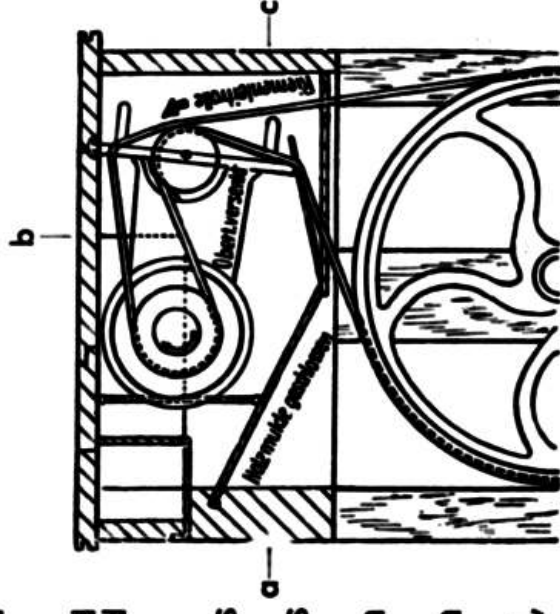
## Putting on the belt

Take care that the belt is not too short because when it is too tight unnecessary high pressure on the bearings will arise or a quick wear of the shafts, also the machine will work heavily, but if the belt is too loose it will slide.



ill. 2 a) wooden trough roller  
b) belt guide roller

ill. 3 a) wooden trough closed  
b) machine head dropped  
c) belt guide roller



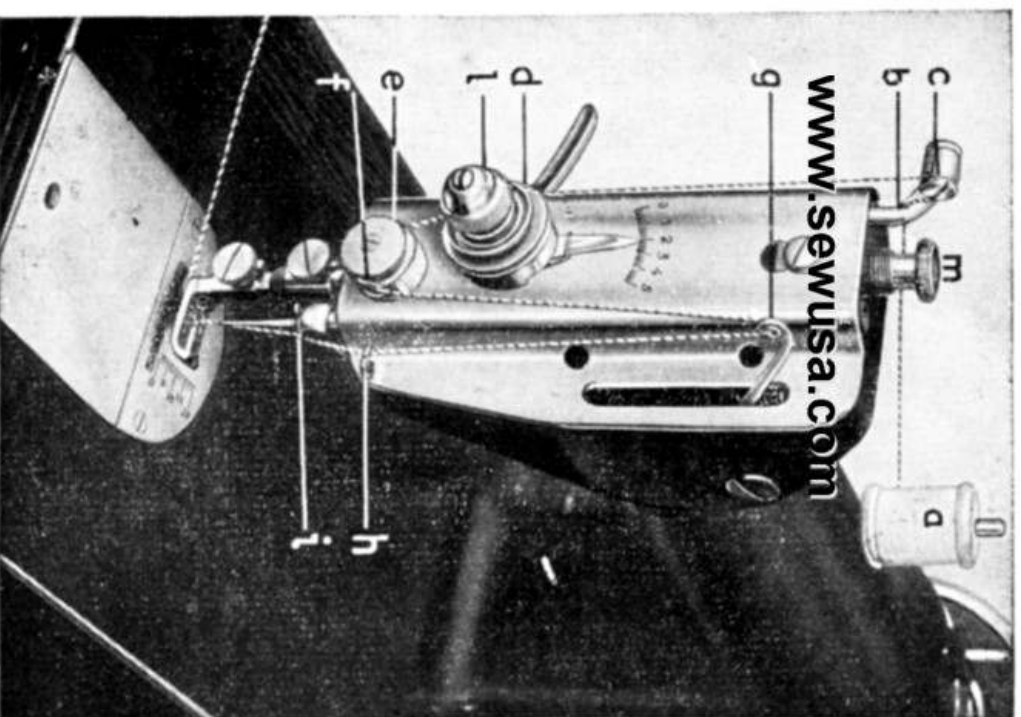
will be avoided.

With drop head machines you can attain by means

of the **belt guide roller** (see sketch) that the belt can be put on unrestrained and the trouble of putting on and removing the belt, when dropping the machine head, will be avoided.

ill. 3





## Threading the needle thread.

### a) For sewing

The needle thread will be guided from the reel **a** below the thread guide **b**, between the discs **c**, one turn around the tension **d**, around the roller **e**, below the thread check spring **f**, from behind through the thread take-up lever eye **g** (thread take-up lever must be in its top position) behind the hook **h**, through the needle clamp eye **i**, and from right to left about  $3\frac{3}{16}$  inches through the needle eye.

### b) For darning

When darning the needle thread must not be guided round the tension **d**, but in front against the spool **d**, so that the thread tension will be loose.

ill. 4

**Only needle system 705 can be used.**

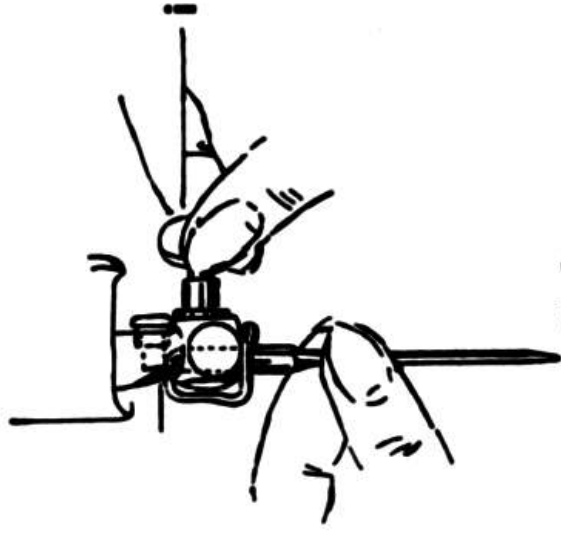
The flat on the shaft of the needle fits on the flat in the hole of the needle bar, thus making a wrong insertion of the needle impossible.

The long groove of the needle must be on the left of the operator.

### **Inserting the needle**

The flywheel must be turned to the right away from the operator until the needle bar is in its highest position, then the needle clamp screw i must be loosened and the needle pulled downwards out of the needle bar.

The new needle will then be set with its long groove to the left (flat on the needle shaft to the right) **as high as possible** into the needle bar hole and the needle clamp screw be fastened by turning to the right.



ill. 5

## **Selection of needles and threads**

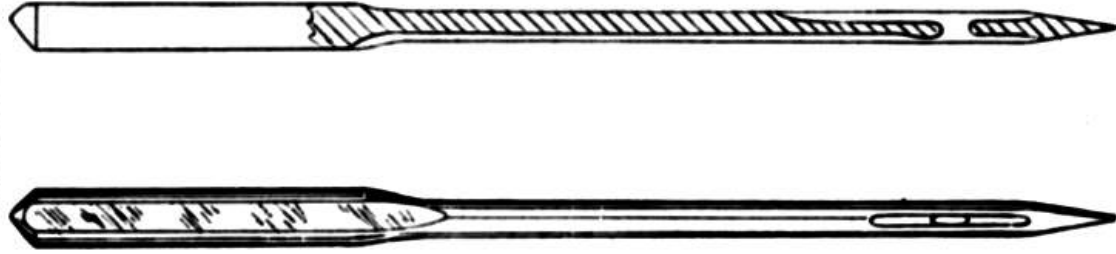
**The general rule is:**

**If the needle thread is caught in the long groove of the needle while the needle is stitching into the fabric, you have to change the needle for a thicker one and if the thread has too much play in the long groove, the needle must be changed for a thinner one.**

**Only the use of a faultless quality needle gives a good seam!**

**When sewing flocky threads or when gummed or shrinking fabrics have to be sewn one should possibly take the next thicker size of needle.**

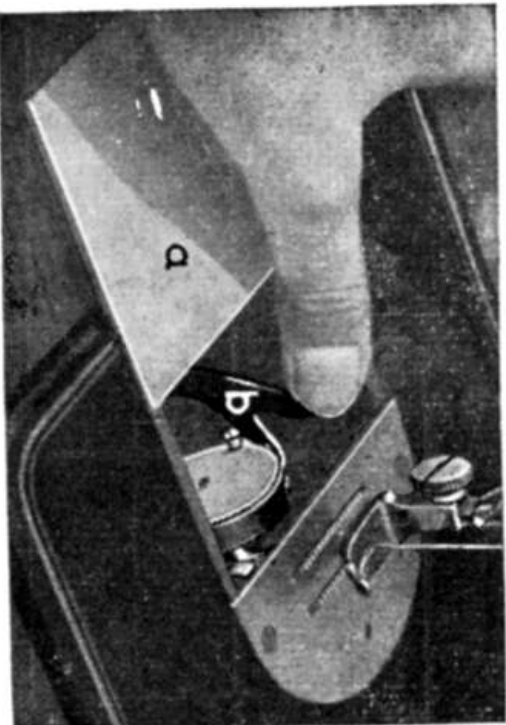
**As bobbin thread use a slightly thinner or a bit smoother thread than the needle thread. The corresponding needle and bobbin threads can be bought in the market under the same number.**



ill. 6

Kind of threads	Size of needle (number)									
	old	new	old	new	old	new	old	new	old	new
	7	70	8	80	9	90	10	100	11	110
Cotton	80-100		70-80		50-70		40-60		30-40	
sewing silk	00		0		B		C		D	
artificial silk	130/3		110/3		80/3		70/3		60/3	
embroidery thread	50-60		30		20		—		—	
Alcazar-silk	000		00		0		—		—	
Nylon-(Perlon) threads										

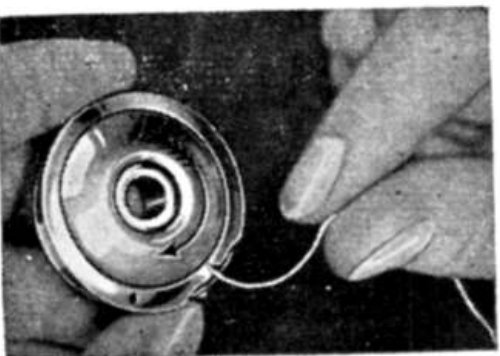
From the quality of the needles and the threads to be used depends the quality and blend of the seam. Therefore only quality brands should be used.



ill. 7

### **Removing the bobbin case out of the latch.**

To take the bobbin case out of the latch, the slide **a** must be pushed to the left and the shuttle latch spring **b** must be loosened, thus the shuttle latch will open.



ill. 8

12

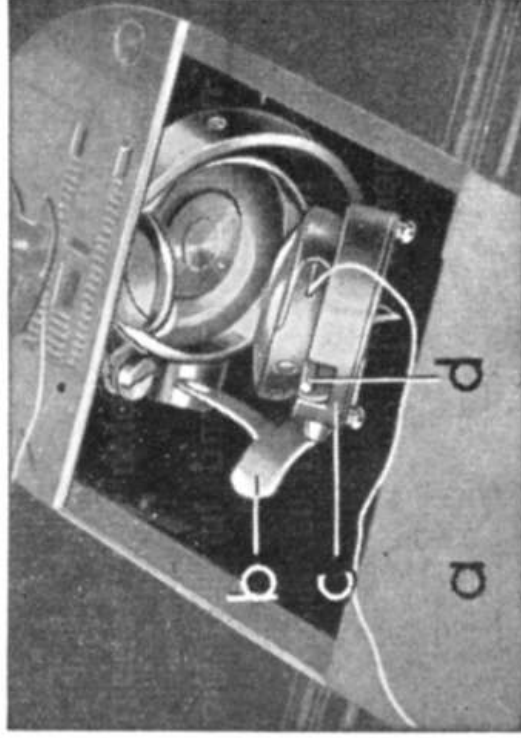
The bobbin must be put into the bobbin case as shown by the sketches at side. The thread can be drawn easily under the tension spring. Watch that the bobbin unwinds to the right in direction of the arrow.



ill. 9

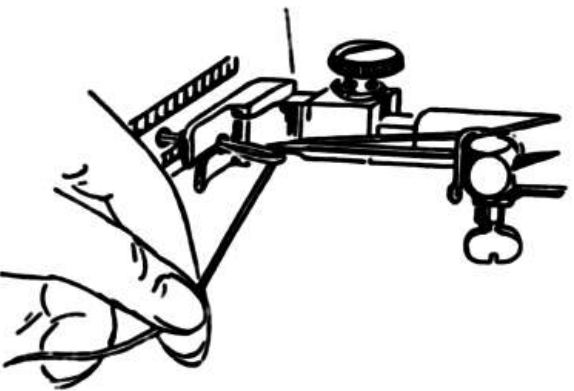
### Placing the bobbin case into the latch.

The bobbin case has to be put into the shuttle latch so that the horn **d** fits in the cut **c** of the shuttle latch, which must be pressed back so far that the spring **b** snaps



ill. 10

## **Sewing**



ill. 11

When beginning sewing we recommend to fetch the bobbin thread upwards, holding the needle thread and turning the handwheel in direction away from the operator, thus allowing up and down movement of the needle. Both threads must be kept back under the presser foot, the fabric must be put between presser foot and needle plate at the place where the seam shall be made, the presser foot must be lowered by means of the lifterlever and both threads held back when making the first stitches so that the threads may not slip away.

The fabric must never be pushed or pulled by hand but only guided slightly in the desired direction.

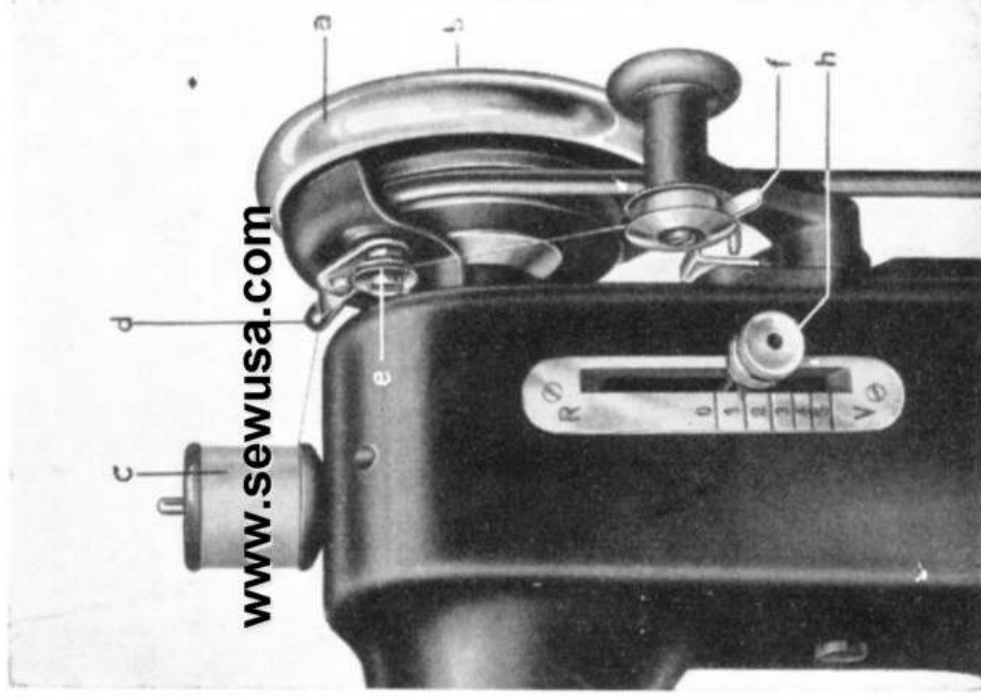
## Winding the bobbin thread

When winding the bobbin the handwheel must be disengaged first, so that the machine does not work unnecessarily. By means of the left hand the handwheel **a** will be stopped and by the right hand the disengaging screw **b** must be turned as far left as possible in direction to the front.

The bobbin thread will be guided from the spool **c**, into the hole **d** of the winder thread guide below the hook **g** between the washers **e**, wound around the bobbin and same put on the bobbin winder shaft so that the set pin fits in the slot of the bobbin.

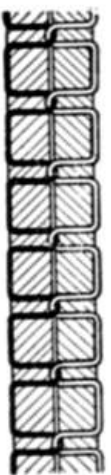
By pressing down the lever **f** the winder will be engaged. When the bobbin is filled the winder will be released automatically.

After winding the bobbin, turn the release screw **b** to the right in order to engage the driving mechanism.



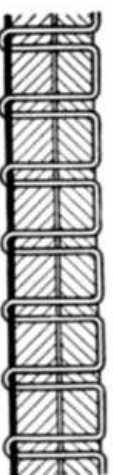
ill. 8





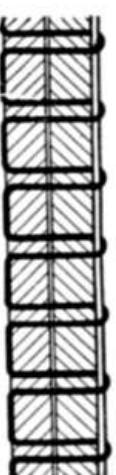
**A**

**Regulating the tension**  
The loop of the thread must be in the middle of both layers of fabrics as fig. **A** correctly shows.



**B**

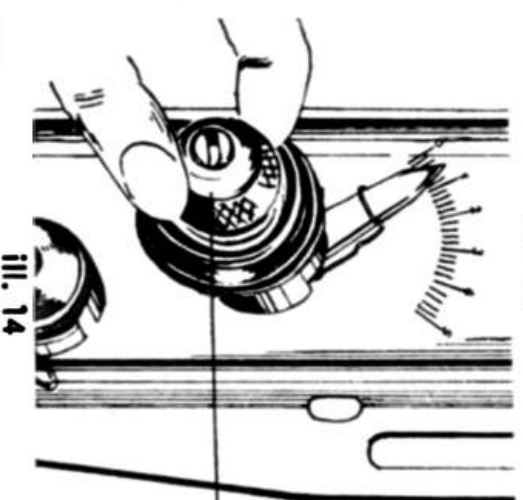
Not as fig. **B** shows, where the bobbin thread tension is too tight or the needle thread tension too loose.



**C**

Or as shown in fig. **C**, where either the needle thread tension is too tight or the bobbin thread tension too loose. Mostly it will be sufficient to tighten the tension of the needle thread by turning the tension nut (ill. 14) or loosen the tension by turning the nut to the left.

ill. 13

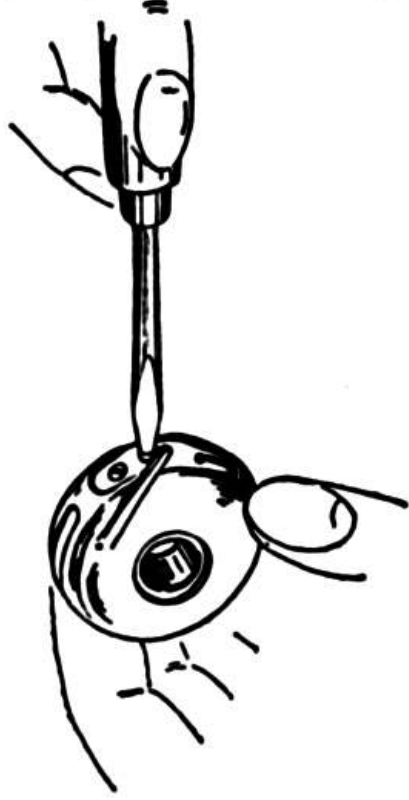


16

The needle thread tension is provided with an indicator which assures the speedy and correct readjusting of the tension, when changing the tension from one work to another.

The needle thread tension is loosest, when the indicator is on **0** and tightest, when the indicator is on **5**.

Unnecessary alterations of the needle thread tension must be avoided. Even the best machine cannot give a faultless seam with faulty tension.



iii. 15

**As far as possible an alteration of the bobbin thread tension should be avoided.**

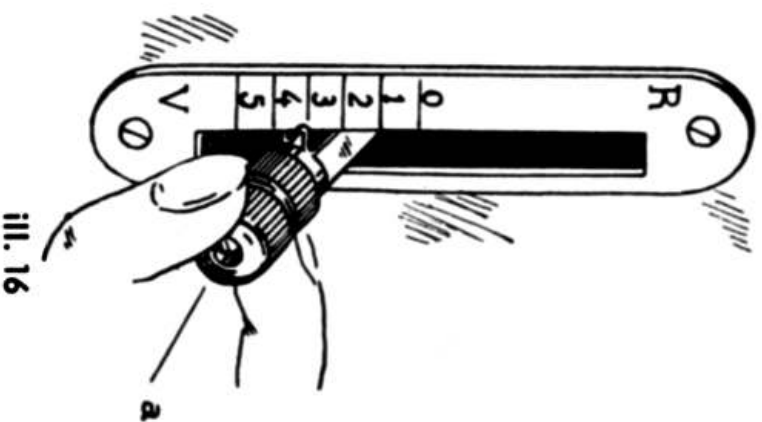
But if this cannot be avoided, the tension can be tightened by a very light turning to the right of the bobbin case spring screw. By turning this screw to the left the tension will be loosened.

### **Adjusting the length of stitch**

The stitchregulator **a** serves for the alteration and limits the length of stitch and for the alteration of the feeding direction.

By swinging the stitchregulator **a** on the scale from 0 to 5 the desired forwardstitch can be attained.

If the same length of backwardstitch is desired screw the knob **a** so far in by right turns that it will be impossible to swing the stitchregulator **a** deeper than the desired length of stitches indicates. To achieve the same length of backward stitch, push stitchregulator upwards until you reach the same distance from 0.



The adjustment will be made expediently during sewing. Where this will not be possible take care that the needle is not in the fabric and the presser foot will be lifted.

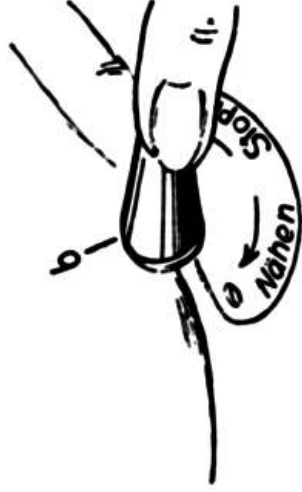
## Dropping the feed dog

For the most embroidering and darning works where the moving of the fabric must be made by hand, the dropping of the feed dog is essential.

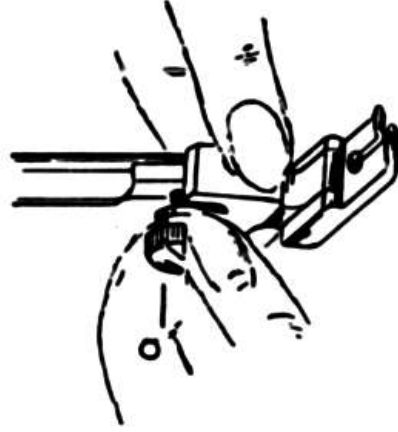
The dropping of the feed dog will be done by swinging the release lever from "Nähen" (sewing) to "Stopfen" (darning). Thus the feed dog drops automatically below the needle plate.

Further the presser foot has to be taken off. For this purpose the presser foot set screw must be loosened by some turns, if the lifterlever is in top position, and the presser foot will be pulled away to the left.

Pay attention to the fact that with all sewing work, even when working without presser foot, the lifterlever must be down as otherwise the tension of the needle thread will not be effective.



ill. 17



ill. 18

### **Difficulties which may arise**

Bad needles, knotty and irregularly wound cheap thread, bad oil and insufficient cleaning can lead to difficulties, which can easily be avoided, when the following hints will be observed:

#### **Cause:**

**When seam is irregular, take care that:**

the bobbin can be moved easily and regularly in the bobbin case,

that the thread is not knotty or of irregular thickness,

that no dirt is below the shuttle spring on account of which the tension does not work,

#### **Remedy:**

see page 12

as far as possible use a good brand of thread.

having loosened the set screws of the spring clean the dirt away (page 15).

**When the machine is skipping stitches, check:**

whether the needle has been set correctly, i. e. high enough, and with its long groove to the right,

compare page 9

whether it is the right type and number of the needle,

compare pages 10 and 11

whether the needle is bent and does not stitch straight into the needle hole,

the needle has to be exchanged for a new and straight one,

when stitching extremely hard fabric,

the standard needle has to be exchanged for a thicker one.

**When breaking thread, check:**

Whether the needle thread is correctly threaded, and moves without any handi-cap through the guides,

compare page 8

whether the thread tension is too tight,

the tension must be as loose as possible so far as a good seam allows,

whether the needle eye is too sharp,

if so, exchange needle.

**When the machine works heavily, check:**  
whether all oilholes have been provided with good oil,

compare pages 23–25

**Whether the belt, having correct length, is properly put on the belt guide roller.**

**compare page 7**

**When the machine does not sew, check:**  
whether the drop lever of feed dog (page 17) has been put on "sewing" i. e. the feed dog actually works.

the feed dog must project about 0,8 mm out of the needle plate when being in its highest position.

**When sewing thicker or thinner fabrics the pressure of the presser foot must be changed. Turn the presser bar bush to the right to increase pressure and turn to the left for less pressure (see page 8 ill. 4). For all normal sewing work the pressure of the presser foot has been correctly regulated by the factory.**

**If, inspite of the indications above, difficulties may arise a mechanic has to be consulted, preferably the dealer who has sold the machine.**

## Cleaning and oiling

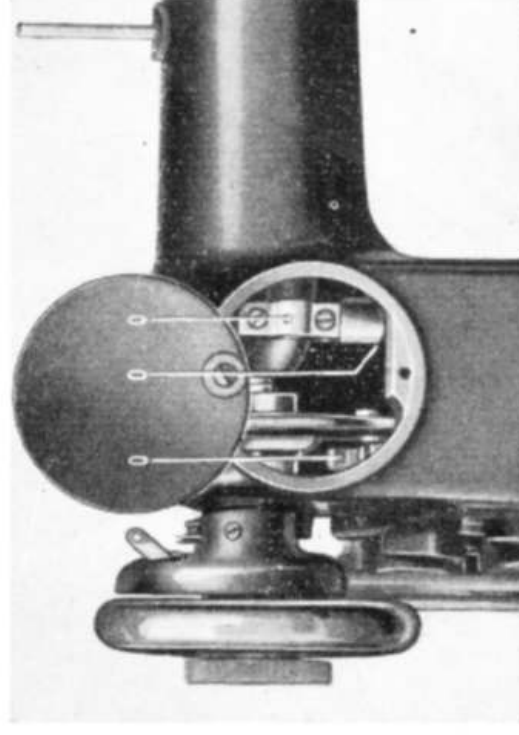
Each machine should be carefully cleaned after some time of use. For this purpose the head cover plate and needle plate must be unscrewed, all visible parts have to be cleaned by means of a rag, soaked with gasoline.

Then some drops of petrol (lamp-oil) must be given to all oilplaces shown in ill. 17—20, and the machine run quickly for some time. The same is recommended if the machine has not been used for some time. Then once more clean with a soft rag and give **one drop of good machine oil to all oilplaces.**

The front plate and needle plate have to be screwed on again.

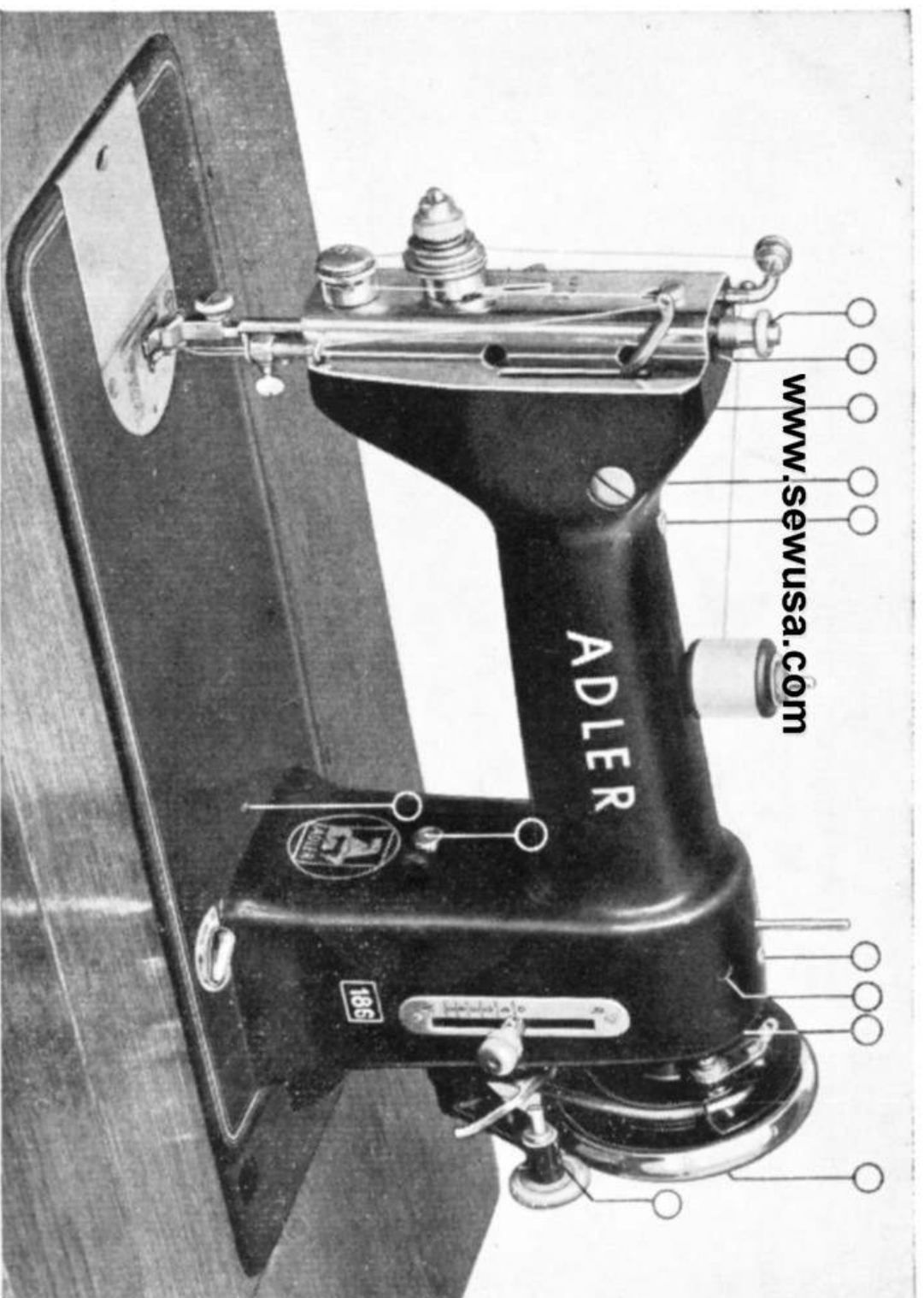
Generally it will be sufficient to oil all those places marked red before beginning sewing. Too much oil is running away and makes the sewing work dirty.

All kinds of household oils as well as glycerine are no lubricating oils for sewing machines. If using such oils you will have to pay for it by costly repairs.



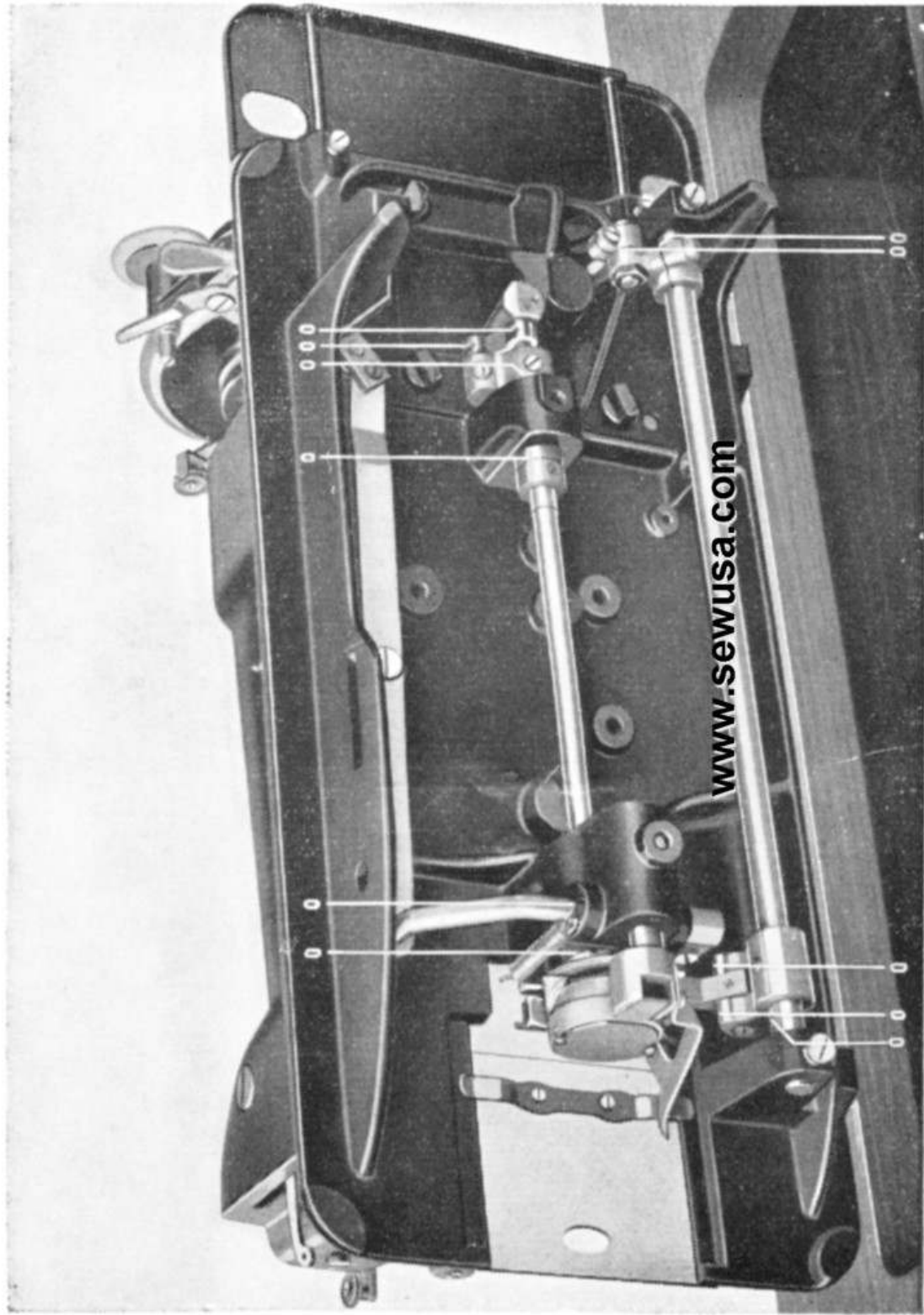
ill. 19





ill. 20

Front view with oiling points



ill. 21  
**Bottom view with oiling points**

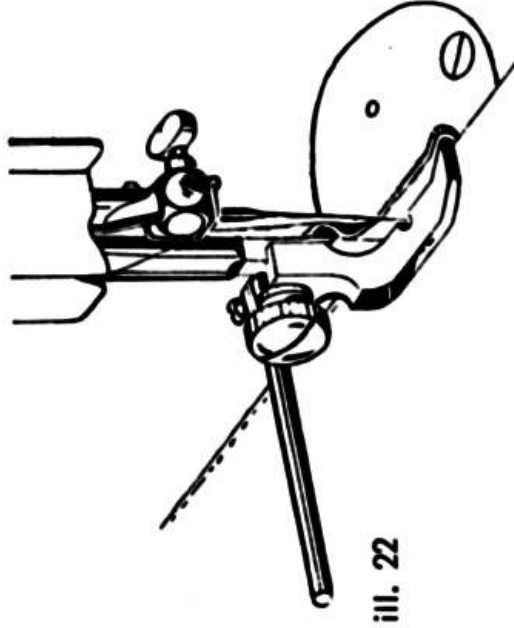
## Standard accessories:

1 hinged presser foot (on the machine) . . . . .	52155 c
1 selfedge presser foot with conductor . . . . .	52046
1 guide . . . . .	61030
1 fastening screw for apparatus . . . . .	S 1342
1 hemmer 3 mm . . . . .	52121
1 lap hemmer 4 mm . . . . .	52039
1 accessory box . . . . .	52157
1 oil can . . . . .	7033
1 big screw driver . . . . .	7053
1 small screw driver . . . . .	7051
10 needles syst. 705 assorted (15 x 1)	
5 bobbins . . . . .	87180

In case of need of further apparatus please ask for prices.

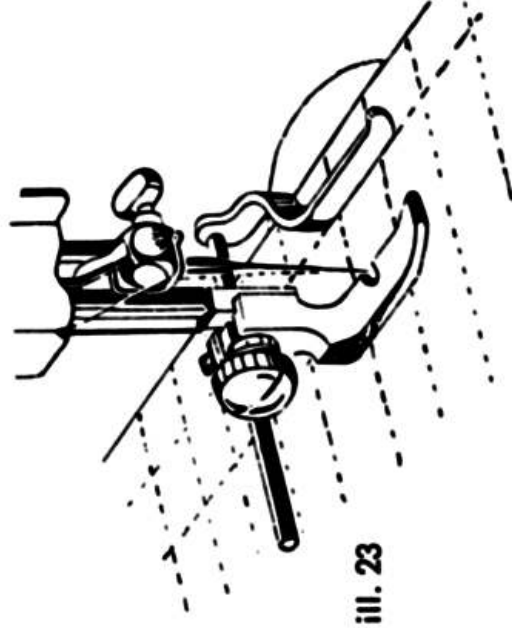
### **Different sewing works.**

Seams running close to the edge can comfortably be made by using the **selfedge presser foot** with conductor for which, as to be seen from the sketch at side, the conductor will be placed close to the foot after having loosened the set screw. The layer of the fabric to be sewn on will then be guided by the conductor.

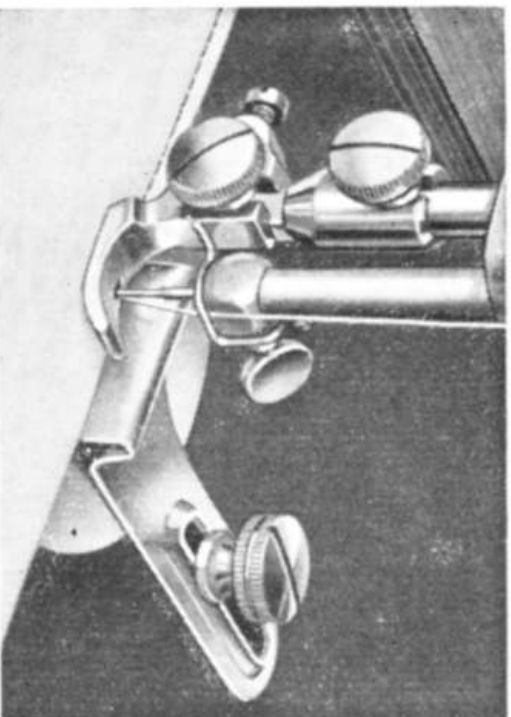


ill. 22

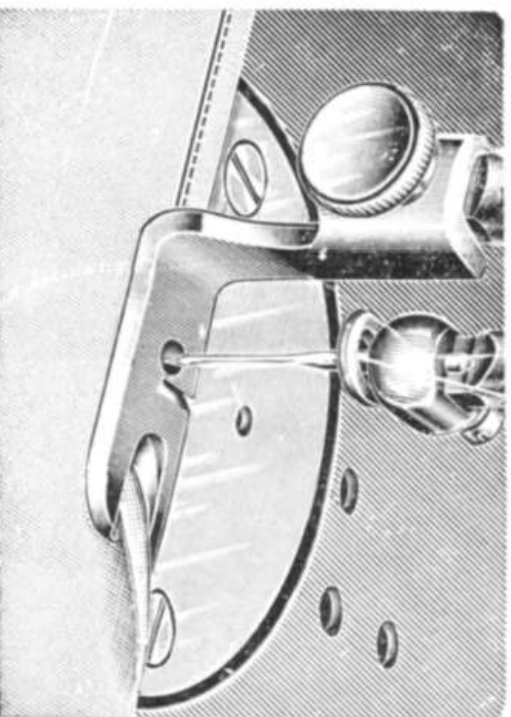
As to be seen from the sketch at the side the conductor also serves as guide for parallel seams. Making such seams the conductor will be regulated as far away from the needle as the second and following seam shall be made and the conductor be guided along the preceeding seam in such a way that the next seam is lying in the desired distance from the preceeding seam.



ill. 23



ill. 24

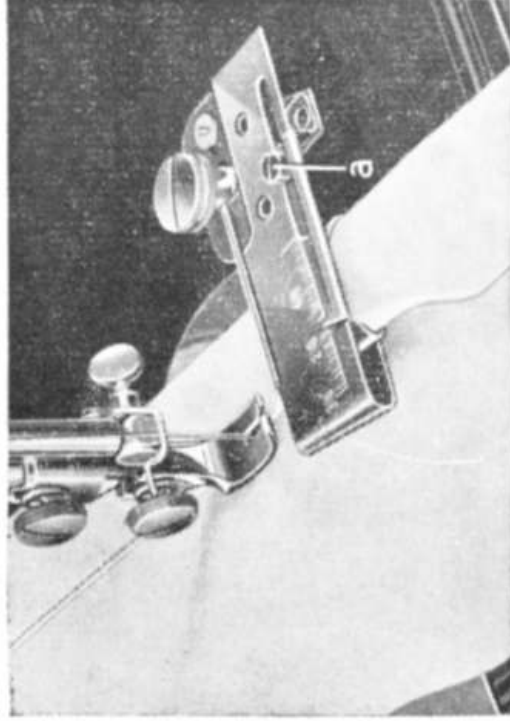


ill. 25

For making seams in an even distance from the edge the guide will be used. The guide will be fastened by means of the apparatus screw on the bed plate in the desired distance from the needle as to be seen from the sketch. According to the distance of the seam from the edge use either the broad presser foot or the selfedge presser foot.

By means of the hemmer you can make hems of 3 mm (approx.  $\frac{1}{8}$ " ) width. The hemmer will be fastened on the presser bar as already known, the edge of fabric to be hemmed has to be folded about 3 cm (approx.  $1\frac{3}{16}$ " ) and about 1 cm (approx.  $\frac{3}{8}$ " ) sloped and inserted so far into the scroll of the hemmer that the needle can catch the fabric. Having lowered the lifterlever you commence hemming taking care that the fabric will be introduced in a regular way.

Too little fabric will not be caught by the needle and too much fabric will be jammed in the scroll of the hemmer.

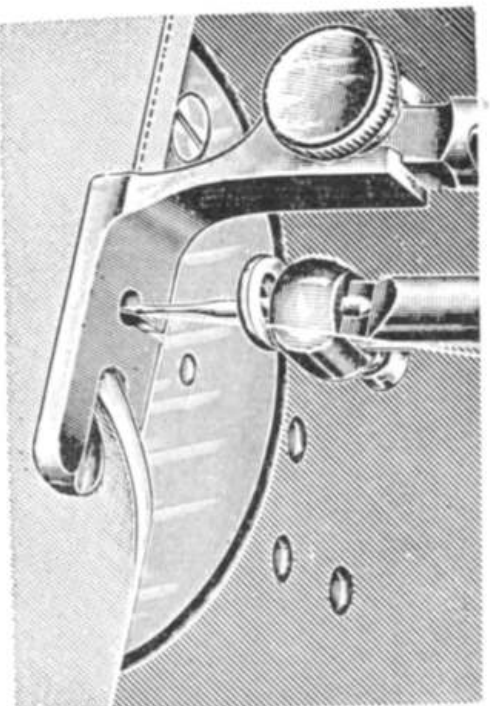


ill. 26

**The adjustable hemmer** will be used for making hems up to 20 mm (approx.  $\frac{25}{32}$ " ) width. The hemmer will be mounted on the bed plate by means of the apparatus screw in such a way that the needle stitches 1 or 2 mm (approx.  $\frac{3}{64}$ " or  $\frac{5}{64}$ " ) away from the edge of the fabric and the guide pin of the apparatus fits into the second hole of the bed plate.

After loosening the screw **a** the regulating of the width of the hem will be done by pushing together or pulling the fabric out of the guide. After each adjustment the screw **a** has to be tightened again.





ill. 27

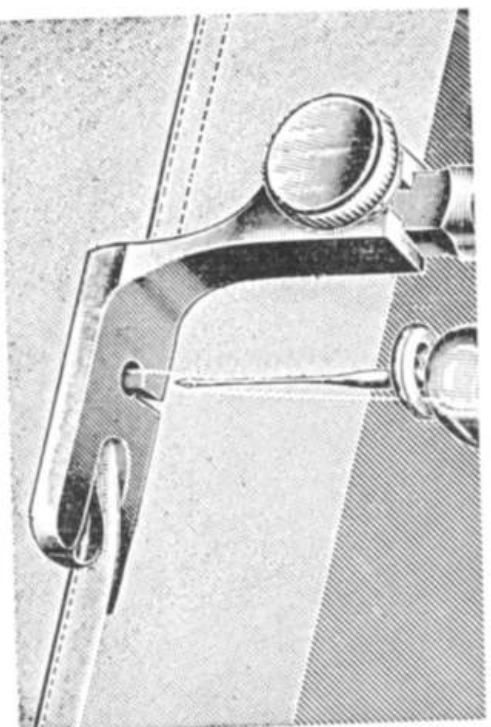
To make a strong joint of the fabric use the **lap hemmer**. The lap seam will be made in two stages.

**First Stage. (ill. 27)**

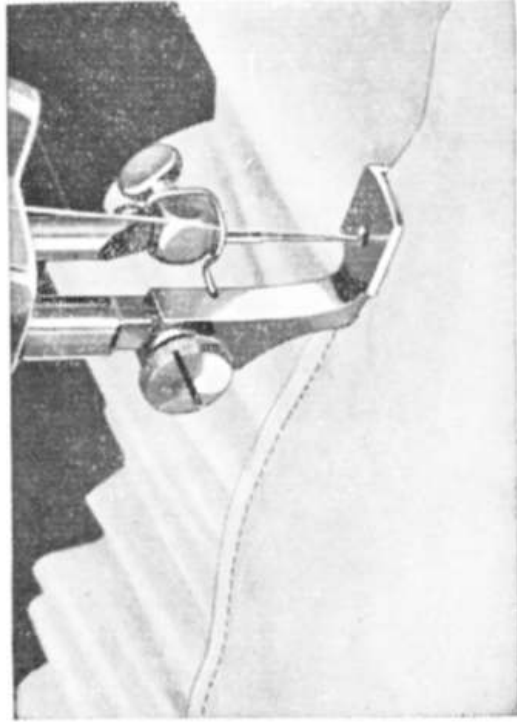
The layers of fabric to be joined must be put on top of each other in such a way that the upper is behind the lower. Both parts must be introduced into the opening of the lap hemmer, the lap hemmer must be lowered. When sewing take care that the fabric enters regularly, so that the edge of fabric leaves the foot like a hem.

**Second Stage. (ill. 28)**

The fabric will be spread, the elevated edge of fabric will be introduced into the foot, the foot will be lowered and the edge of the fabric will be sewn down.



ill. 28

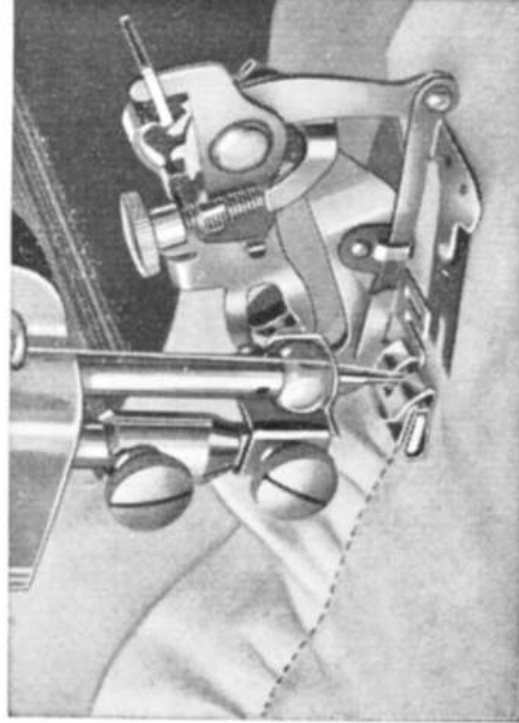


ill. 29

To ruffle the lower of two layers of fabrics when attaching them use the **ruffler** (fig. 29). The fabric to be ruffled comes beneath the foot and the smooth fabric, folded by  $\frac{1}{32}$ " into the slit of the foot. The **length** of stitches can be adjusted according to the desired size of the ruffles.

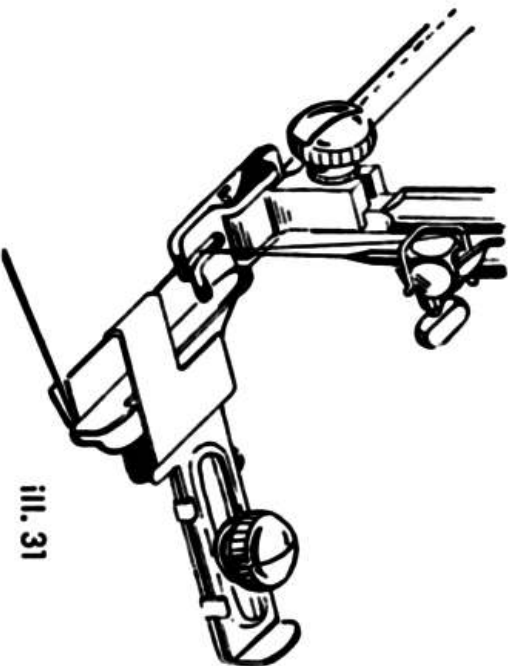
When fastening the fivesitch ruffler see that the fork lever will be pushed above the needle clamp nose. The apparatus can be adjusted in such a way that once with each stitch or with every fifth stitch a ruffle will be formed.

A special instruction has been added to this apparatus.



ill. 30

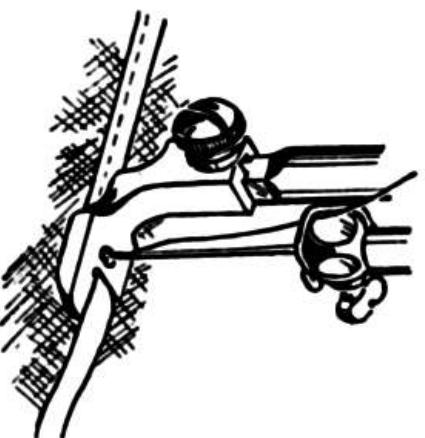




ill. 31

For attaching trimmings etc. the **adjustable ribbon attacher** must be used, which can be adjusted for various breadths of ribbon and must be screwed on to the bed plate in the same way as the guide.

The adjusting of the ribbon attacher will be made by the simple shifting of the upper part against the lower part. The fastening will be made by means of the set screw.

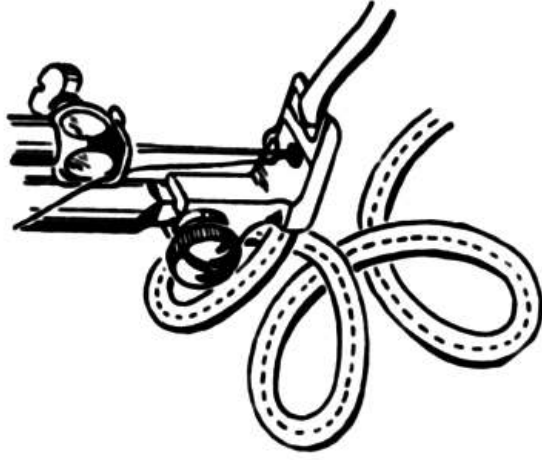


ill. 32

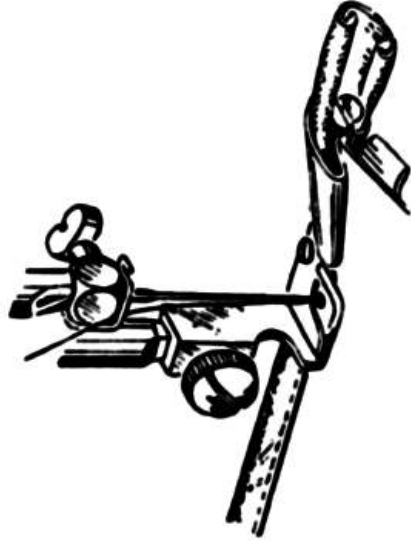
For attaching ribbon on to the edge, the **ribbon attaching foot** will be sufficient. This will be put on the presser bar same as any other presser foot. The ribbon to be attached will be guided from above through the slot underneath the foot. When attaching take care that the ribbon always will be introduced at the left of the edge.

In the same way as cord can be attached by means of the corder also braids can be attached by means of the **braider**. The braider must be adjusted for the different widths of braids by pulling the conductor to the front or backwards after loosening the lateral set screw. The braids must be guided over the plate guide underneath the foot and sewn on according to the design.

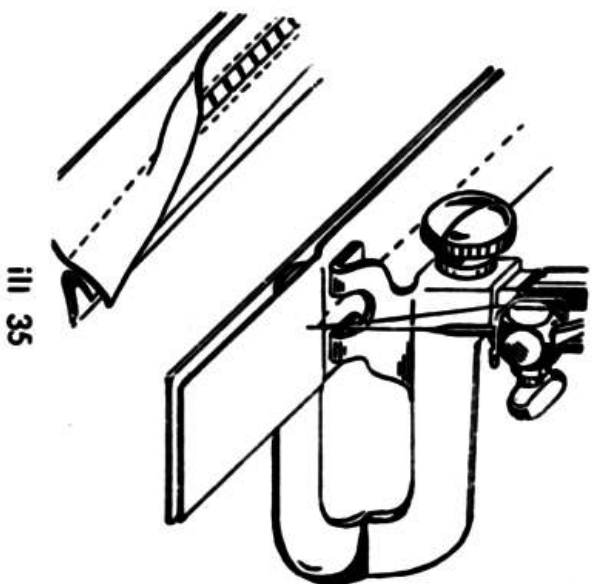
To bind edges of fabrics by means of ribbons and folding simultaneously both outer-edges of the ribbon the binder must be used, which will be fastened on the presser bar in the common way. Suitably the ribbon will be slanted at the beginning to facilitate the introduction, it will be guided through the binder-mouth underneath the foot, whereas the fabric will be put between the joining pieces of the scroll. The distance of the seam from the edge of the fabric can be adjusted by means of the lateral regulation of the scroll after having loosened the set screws.



ill. 33



ill. 34



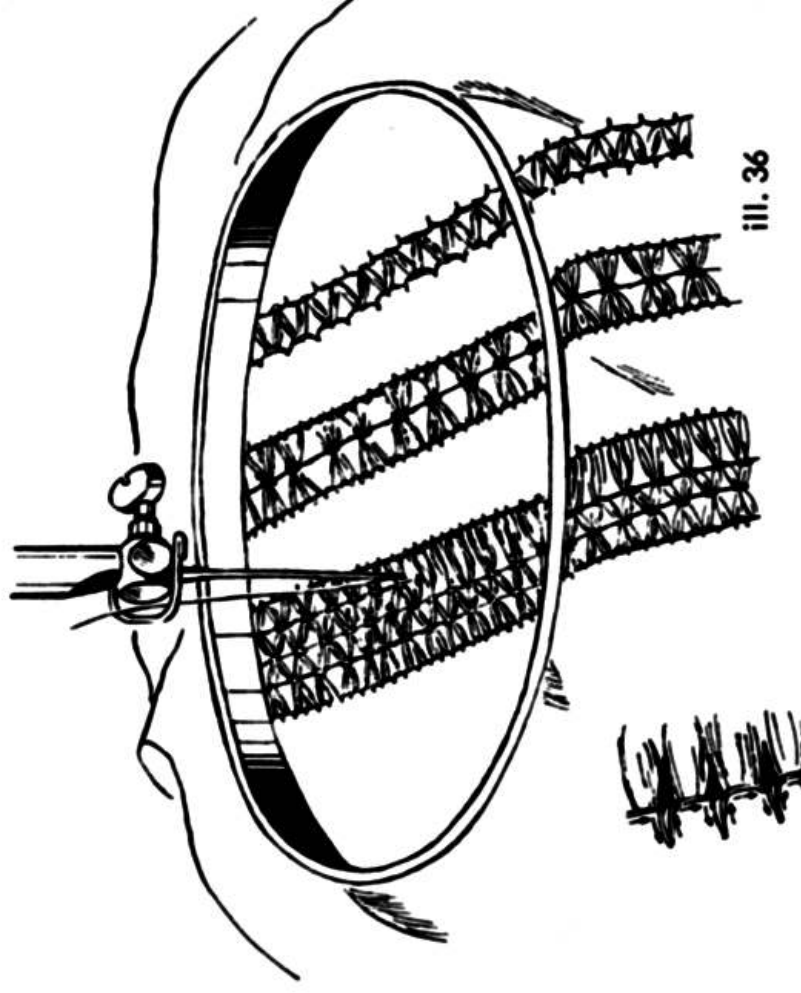
**The spokestitch foot** serves for the making of a spokestitch seam between two layers of fabric. The spokestitch foot will be fastened on the presser bar in the common way, one layer of fabric put underneath the foot and the second layer of fabric over the frontarm of the foot (the size of which gives the width of the spokes) underneath both back-arms of the foot. Then both layers of fabric will be laterally shifted in such a way that the needle stitches on the desired spot and the presser foot will be lowered. The adjusted length of stitch gives the distance of the layers of folds to each other. After having sewn the spokeseam the layers of fabric will be unfolded, the deserting parts of fabric overedged, ironed down and fastened by means of short lockstitches. The deserting parts of fabric must then be cut close to the seam.

**Spokestitch seam** can also be made in different ways even without auxiliary apparatus.

Having pulled out the threads on the places where the spokes shall be made stitch along the loose threads on one side of spokestitch seam to bundle the threads.

The longer the stitch will be the bigger shall be the bundles.

Then the presser foot will be taken off and the feed dog dropped. The fabric will be tensioned in the common way into the embroidery frame and put underneath the needle as per sketch at side. Then threads bundled already will be overstitched from bundle to bundle i. e. caught together by over stitching the single bundle and making the third stitch about  $\frac{5}{64}$ " from the spokestitch into the fabric and so forth from bundle to bundle. On the other side the bundling can be saved as here the partition can already be seen.



Such kind of bundles can again be united to twins and thirds and adorned on the joints by a knot or a spider.

Such designs can be made in manifold ways.



ill. 37

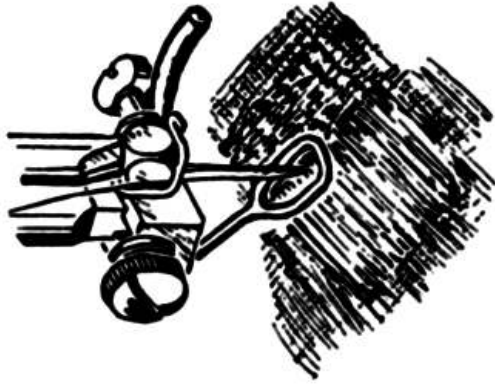
Needle and bobbin thread must correspond in colour to the fabric. Deviations from the colour demand a most careful sewing work but may lead to an adornment of the spokes.

### **Embroidery frame**

A good embroidery work demands that the fabric will be tightly stretched in the embroidery frame. For this purpose the embroidery work will be put with the place to be embroidered over the metal ring, the wooden ring pressed in it, the tension screw tightened and the fabric highly stretched. Only with highly stretched fabric a nice embroidery can be made.

Purposely the metal ring will be thinly wrapped with fabric that the embroidery work may not be damaged.

The stretched fabric will be put in such a way under the needle that it is placed flat on the needle plate.



iii. 38

**Darning** can be done on the sewing machine much speedier and cleaner than by hand.

When darning the presser foot will be removed and the feed dog dropped (see page 19)

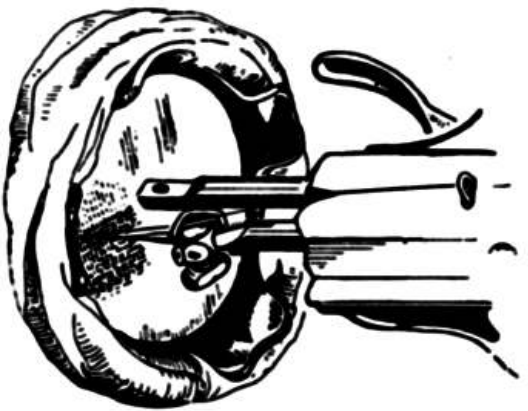
The part of the fabric to be darned must be stretched tightly into the embroidery frame (page 36).

As shown by the sketch 38 first some stitches will be made on the exterior margin of the part to be darned, that the fabric does not become frayed. The place will then be closed by means of long stitches and regular layers of thread. Then the second layer of thread across the first one will be sewn. This will be repeated according to the thickness of the material.

As needle and bobbin thread use efficiently a soft and thin cotton and thin needles. You must work with loose needle thread tension.

Preferably the darning foot or at least a darning spring will be used for darning both of which will hold the fabric down for a better stitching position.

**Darning of hoses will be made in the same manner, but instead of the embroidery frame a special hose-darning apparatus is essential.**



ill. 39

This darning apparatus will be put into the left drawn hoses so that the smooth flat will be under the place to be darned and as per the sensibility of the material to be darned the hoses must be tightly tensioned in the darning apparatus by means of the supplied rubber or spring ring. The hoses have to be tensioned as tight as possible without stretching the fabric too much. The hoses will be rolled up as close as possible outwards up to the darning apparatus and then pulled over the ring.

When darning one finger has to hold the tissue most closely on the needle-stitching, to avoid skipping of stitches or unclear sewing of the border of the tissue, — or a darning spring has to be used.

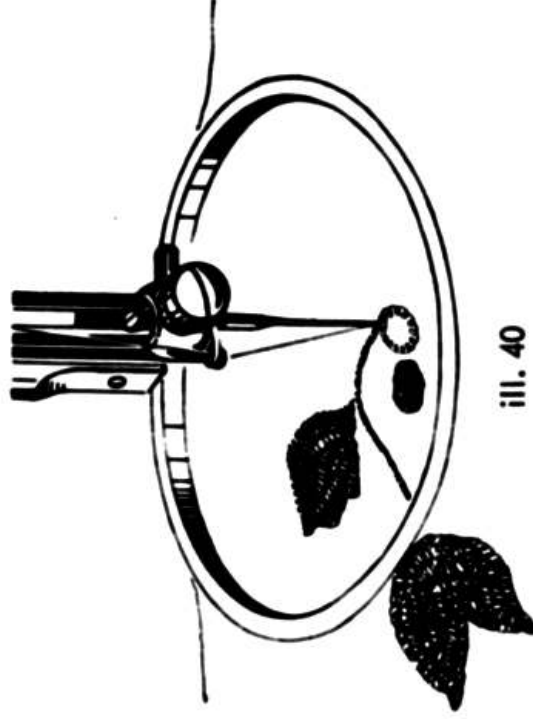


**Granite or gravel stitches** will be often used for embroidering arabesques, flowercups, fruits, landscapes etc. This way you can make the most delicate colorations and shades of colours. The embroidery work is getting a mossy look.

The fabric will be stretched in the common way into the embroidery frame, the presser foot will be removed and the feed dog dropped.

The framed embroidery work will be moved around the needle in such a way that small circles will be formed. On the places where other colours shall be shaded in, the circles must not be held too narrow, that later on the embroidered threads do not lay up too high.

You must work with loose needle thread tension.

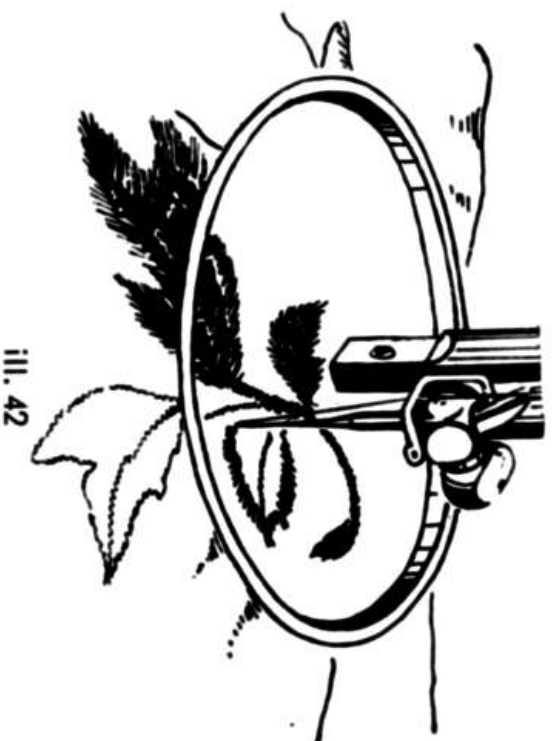


ill. 40



ill. 41





**Tulle embroidery** (ill. 42) will be used for small table clothes, baptismal robes etc. The presser foot will be removed and the feed dog dropped. The design to be embroidered will be drawn before on paper, the tulle attached above and the drawn up design will be stitched. The borders will be cleaned by embroidering small circles. After finishing the design paper will be removed.

**Needle painting** will also be done within the embroidery frame and with presser foot removed and feed dog dropped. This will need some exercise that embroidery work i. e. the embroidery frame may be moved regularly forwards and backwards corresponding to the drawn up design at any time when the needle is out of the fabric.

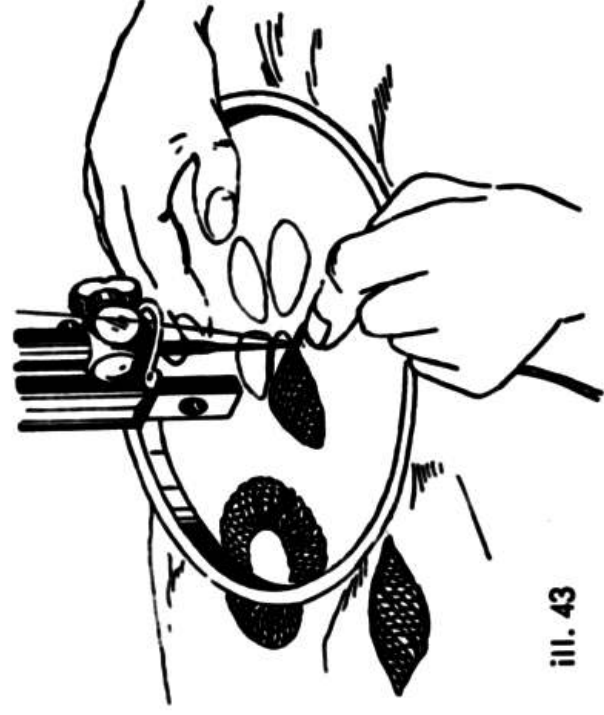
First try to embroider a stick as per sketch at side regularly and clean, stitch close to stitch, leading the embroidery frame by both hands.

Smaller leaves can be over stitched by straight, and bigger leaves by oblique stitches and the ribs of the leaves by stemstitch. Essential is the right choice of the colours, which must flow gently into each other.

The most used colour must be embroidered first and later on the shadowing colour. The standard fabrics for needle work can be used.

**Woollen thread embroidery** will be generally executed on one colour fabrics as the coloured woollen threads will give more effect on one-coloured ground. As embroidery thread wool, cotton, bast, twist, perlthread etc. can be used. The needle thread must correspond in colour to the fabric that the attaching stitches are as far as possible invisible.

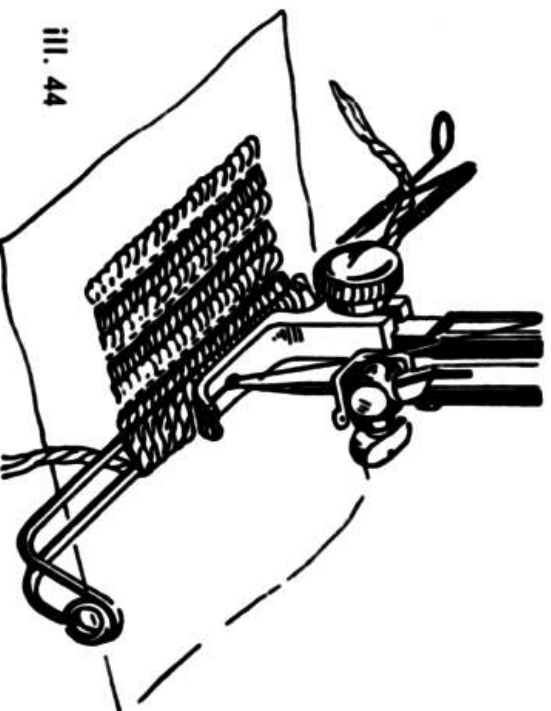
The embroidery work will be stretched into the embroidery frame- the presser foot removed and the feed dog dropped (pages 36 and 19).



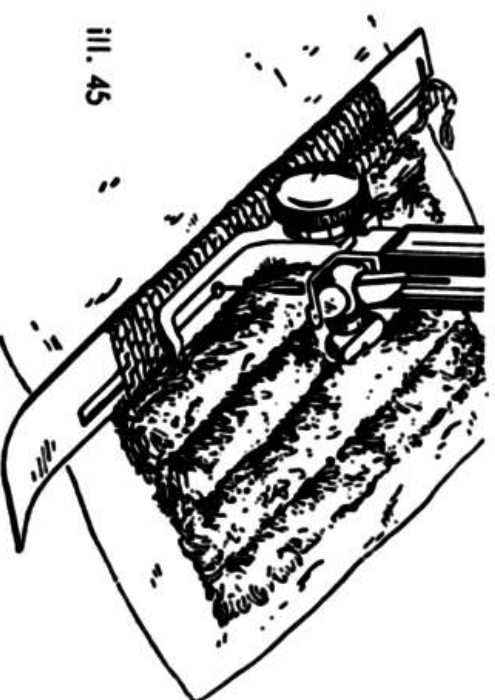
ill. 43

As to be seen from the sketch at side, the wool thread will be attached with some stitches at both sides of the design to be embroidered. Then the second thread will be put underneath, sewn along the thread and the thread again attached by some stitches at the end of the figure. Thus thread will be put close to thread until the figure will be filled out.

Also for these works drawn up designs can be obtained in the market.



ill. 44



ill. 45

### **Kelim embroideries**

For this wool-embroidery a special kelim-fork and a hemmerfoot 52087 must be used. By means of this apparatus the nicest designs can be made without too much exercise. Corresponding to the drawn up design the most different woollen threads will be wrapped around the kelim-fork and by means of short lockstitches sewn on the underlying fabric (Aida). Then the fork will be pulled forward and if necessary once more wrapped in wool and same sewn fast. The woollen threads will be sewn on in the beginning and at the end of seam by means of short stitches sewing to and fastened on.

### **Smyrna works**

will be made in the same manner as kelim works, only the fork to be used is wider and has a slot on one side. The woollen threads attached will thus be longer on one side. On the wider side the woollen threads will be cut in the curves.

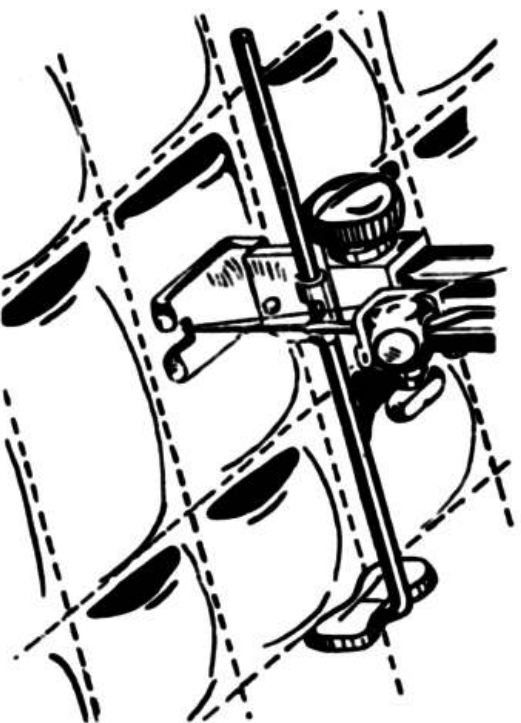
Design cards for such works can be obtained in the market.

**Smock-work, drapery, ruche, etc.** can be made on the sewing machine, if an elastic bobbin thread will be used. Such threads can be bought in the market. The elastic thread will be wound on the bobbin without any stretch and the bobbin will be put into the bobbin case as usual leaving the tension spring very slack. The fabric must be held stiffly when sewing and will thus be ruffled at once. The ends of the threads must be well tucked so that the elastic thread does not get loose. If the ruffling should not be dense enough the stitch must be adjusted longer. Eventually the bobbin thread tension must be made tighter.

Various designs have been illustrated at side without limiting the possibilities.



ill. 46



ill. 47

cut according to the design and the piece be lined. Uncut, cushion plates can thus be made.

**Quilting** on cotton can be done in the most different ways as per kind of work demanded. The presser foot and feed dog will be left at work. For back-lining on morning-coats etc. the cotton will be put on the lining and over it the upper fabric and all these three layers will be stitched together in regular distances.

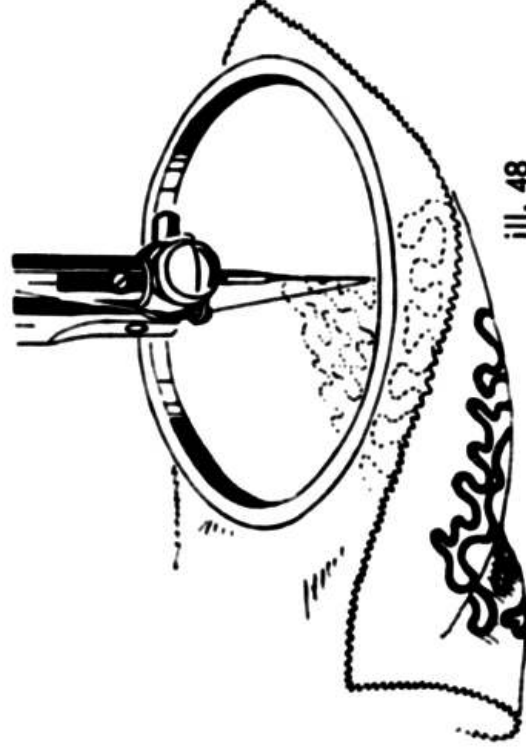
As third way may be mentioned that over the upper fabric the lining and above this the drawn-up design will be put and according to this design will be sewn. From the left then woollen thread will be introduced, which owing to its stretching ability always goes back into the old position.

**Curving** (ill. 48) serves for adornment of collars and pocket-pads etc.

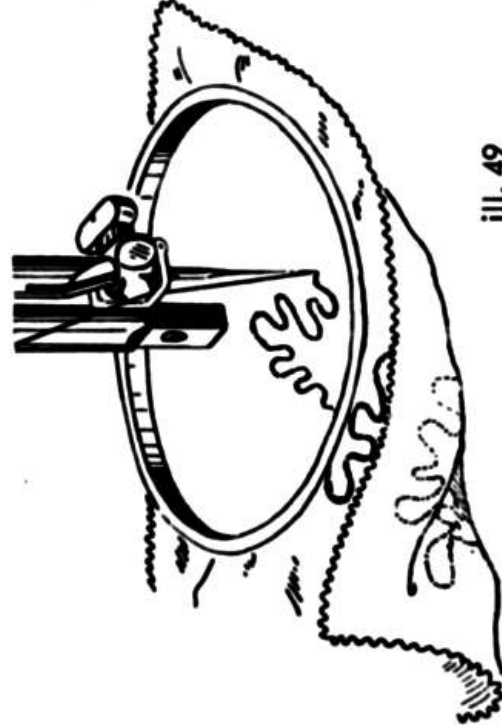
Fabric left side up to be stretched in the embroidery frame, remove presser foot and drop the feed dog. Then corresponding coloured twist will be wound up, the bobbin put into the bobbin case, the tension be loosened and the bobbin case set in. By means of the needle threads of same colour the bobbin thread will be fetched upwards and as usual both threads must be hold back when making the first stitches.

By speedy sewing a small arch will be made or the embroidering frame guided according to the design. The bobbin thread appearing on the right side of fabric gives then the adorning effect.

With the second operation (ill. 49) the fabric will be stretched on the right side and sewn in the way already described, leaving the tension of the needle thread very tight and pulling the bobbin thread of sewing silk (40 upperthread) and caught upward.

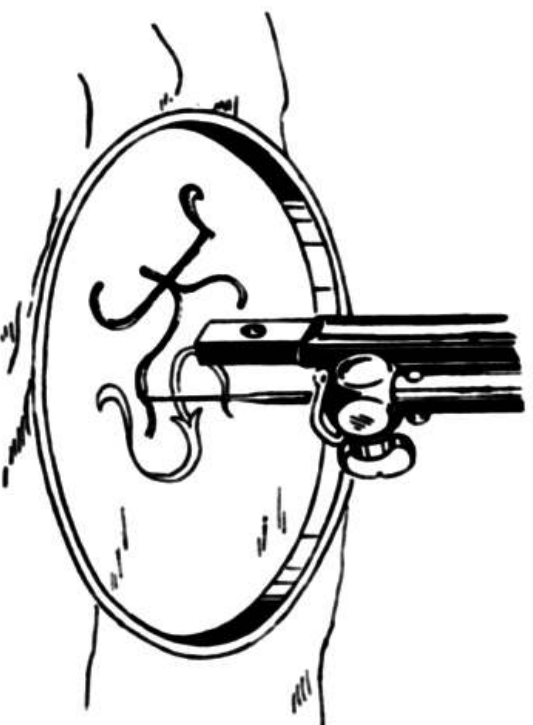


ill. 48



ill. 49





ill. 50

## **Monogram Embroidering.**

For this kind of embroidery also the foot will be removed, the feed dog dropped and the embroidery frame used.

The designed monogram will be stretched in the common way into the midst of the embroidery frame and an inlaid thread corresponding in thickness to the size of the monogram sewn on by means of light zigzag stitches, to make the embroidery work more projecting and to leave both hands free for the over stitching.

The over stitching will then be made corresponding to the design by means of closely side by side lying zigzag stitches. With broader over stitches a double inlay-thread must be introduced.

Whole names can also be made easily by means of curve-embroidery (page 45).



ill. 51

When embroidering with **metallic (leonic) threads** the threads have to be used as bobbin thread. The bobbin case tension spring must be removed that the metal thread will be worked with its own tension only. The design will be put on the left side of the fabric and the embroidering also made on the left side, making thus the metallic thread clearly visible on the right side of the fabric using only a light needle thread tension. The needle thread (sewing-silk) should correspond in colour to the colour of the metallic thread or to the basic-colour of the fabric.

The universality of this modern household sewing machine is not yet completely described. This sewing machine allows the execution of nearly all sewing work which may arise in a household, better, speedier and more comfortable than by hand, only a bit exercise and skill is needed to make the sewing machine indispensable for every housewife.